ECOPED™

Ecoped Pulse

Rider Guide

ECOPED
TM

Welcome aboard.

You're excited to get on the road, so we'll keep this brief!

Let's get started.

Ecoped Pulse gives you the freedom to move like never before. It combines the convenience of a bicycle with the utility of a car, but it doesn't require expensive insurance, registration or a license. And because Ecoped Pulse runs on electricity, it dramatically reduces your carbon footprint.

Before riding, let's get some housekeeping things out of the way:

1. Charge up! Your scooter's battery may not be fully charged. This will take a few hours, so it's best to get that started right away (we'll wait). You can learn how to charge the battery on page 18.
2. You should have received two sets of two keys – keep them separate!
3. Remember to register! Now that the battery is charging, take a minute to register online at www.ecoped.com. This will allow you to request warranty support later on.
4. Don't be a stranger! Visit www.facebook.com/ecopedbikes or follow @ecoped on Twitter! Chat with other riders and keep up to speed with Ecoped events!
5. Become an expert! This manual is surprisingly helpful. It's true that once you learn how to ride a bike you never forget, but Ecoped is no traditional bike. It has some neat features that help you get more from your ride, so read up and learn how to use them!

Using a helmet
is the best protection
in the event of an accident.

Wearing one may even be mandatory in your area,

so check your local bicycle laws before riding.

Please ride responsibly.

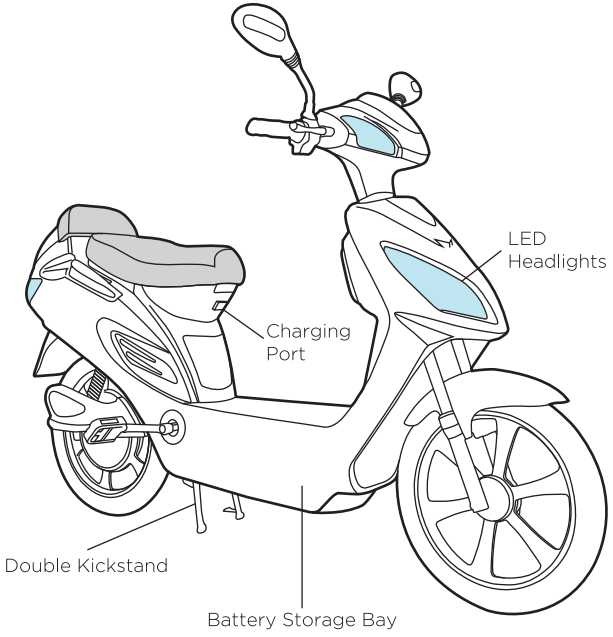
How can we help?

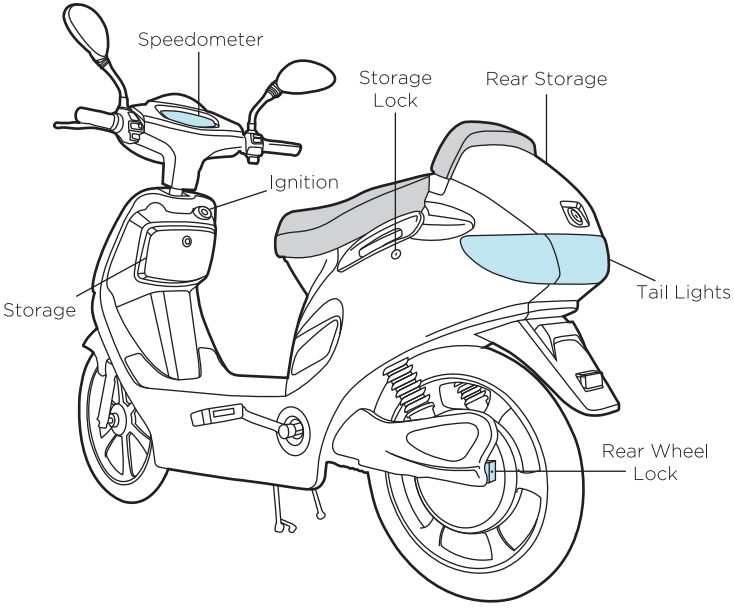
I want to...	On page...
Set up my new scooter	14
Charge the battery	20
Adjust the brakes	23
Remove the battery	18
Get some riding tips	25
Securely park my scooter	15
Store my scooter for the winter	29
Learn about my warranty	31

We've got you covered!

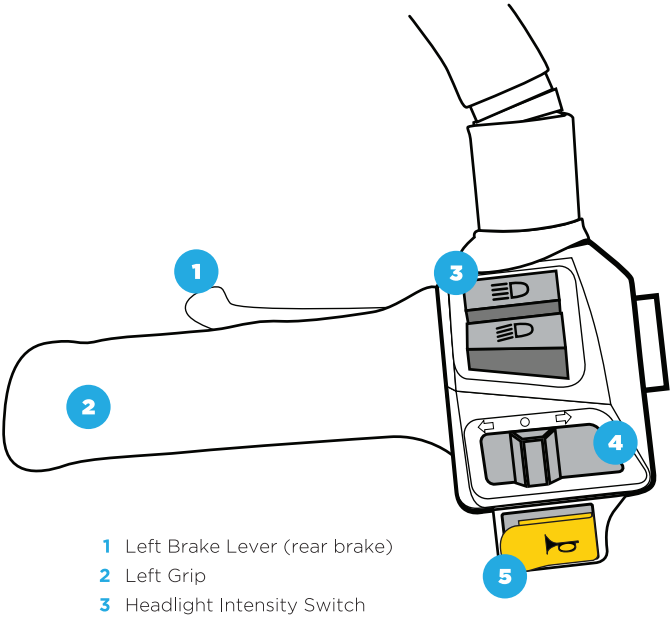
Call us at 1-877-528-3772 if you have any questions

Your Ecoped Pulse

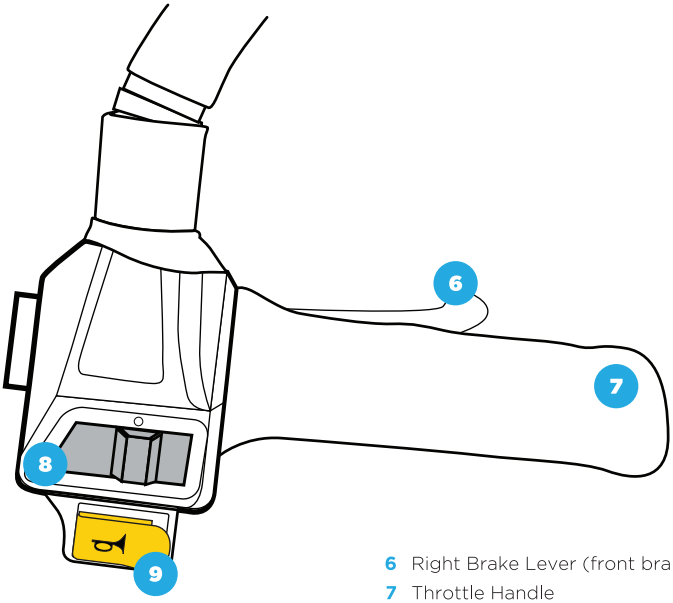



Speedometer
Storage
Lock
Rear Storage
Ignition
Storage
Tail Lights
Rear Wheel
Lock

Ecoped Pulse Controls

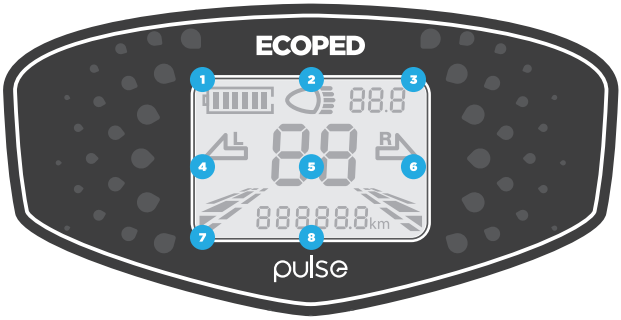


1 Left Brake Lever (rear brake)
2 Left Grip
3 Headlight Intensity Switch
4 Turn Signal Switch
5 Horn switch



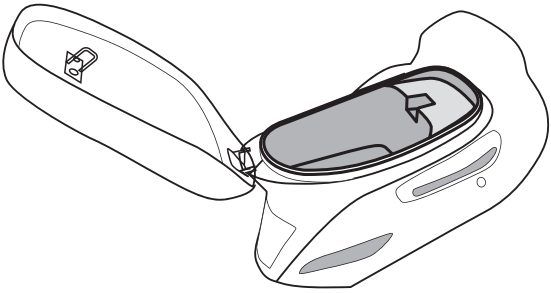
6 Right Brake Lever (front brake)
7 Throttle Handle
8 Headlight Switch
9 Horn Switch

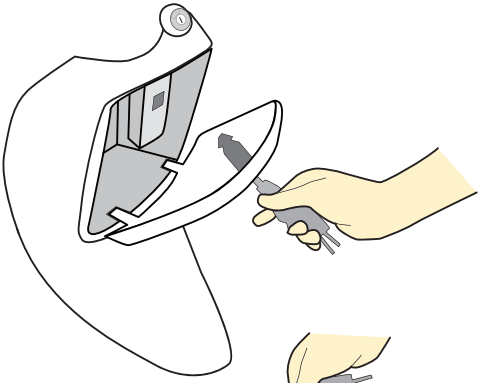
Rider Information Panel

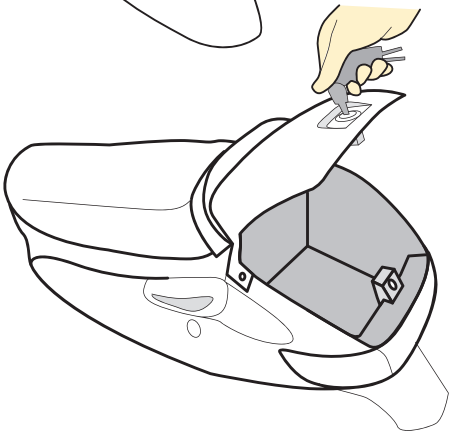


1 Battery Charge Level
2 High Beam Indicator
3 Trip Meter (resets with ignition)
4 Left Turn Signal
5 Speedometer (KM/h)
6 Right Turn Signal
7 Speedometer Animation
8 Odometer (total distance travelled)

Storage Compartments







Getting Up to Speed

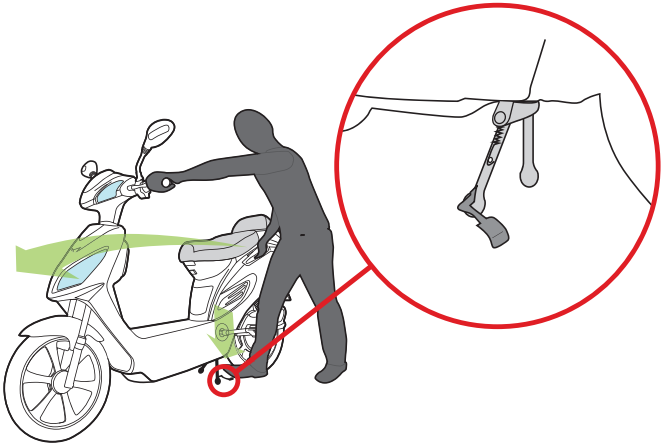
These next steps will ensure that your new Ecoped Pulse is in great working condition. Before riding for the first time, please take a few moments to go over these, and refer to the Maintenance Schedule for information on when they need to be repeated.

PARKING ECOPED PULSE

You can park Ecoped Pulse almost anywhere that traditional bicycles are allowed. Pulse includes a few safety features to protect against theft. The double kickstand is best for use in high-traffic areas or uneven surfaces. The flick stand is better suited for short-term parking on level ground and with little traffic.

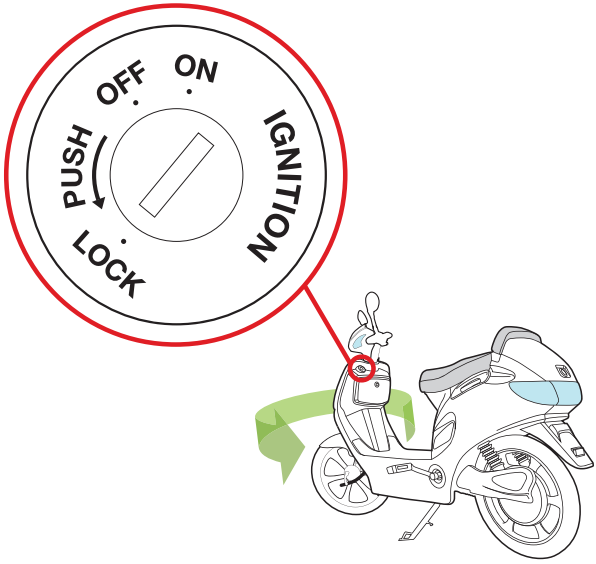
Engaging the Double Kickstand

1. Working from the left side of the scooter, press the left brake lever and grab the handle next to the seat cushion.
2. Lower the kickstand with your foot and release the brake when the kickstand touches the ground.
3. Continue pushing down with your foot while gently lifting and rolling the scooter back with the seat handle.
4. The scooter will roll backwards into the kickstand position and will stop once the kickstand is engaged.
5. When the kickstand is properly engaged, the rear wheel will be off the ground and Pulse should not roll forward.



Engaging the Front Wheel Lock

1. Turn ignition to the OFF position.
2. Turn the front wheel to the left and maintain it in that position.
3. Push the key into the ignition and turn counter-clockwise to the LOCK position.



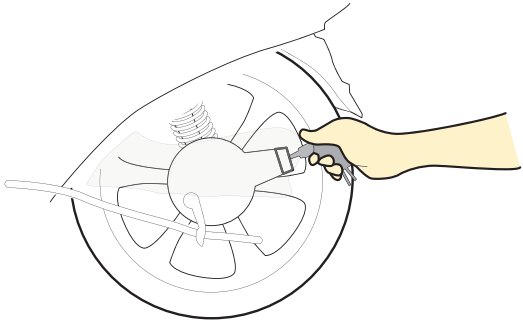
Using the Flick Stand

1. Ensure that the steering lock is engaged with the front wheel turned to the left. Only use the flick stand on a flat surface.
2. Standing on the left side of the scooter, push the flick stand down with your foot until the spring locks into place.
3. Tilt the scooter onto the flick stand and ensure that it is stable.

USING THE REAR WHEEL LOCK

The rear-wheel lock is designed to provide additional security when Ecoped Pulse is parked in a public area. When engaged, it blocks the rear wheel from rotating and makes the scooter impossible to ride away with. We recommend using this feature when parked outside for long periods of time.

1. The lock is located on the rear tire on the left side of the hub, indicated by a blue protection cap.
2. Insert the long, narrow key included with the ignition key, and rotate clockwise 90°.
3. To disengage, rotate in the opposite direction.

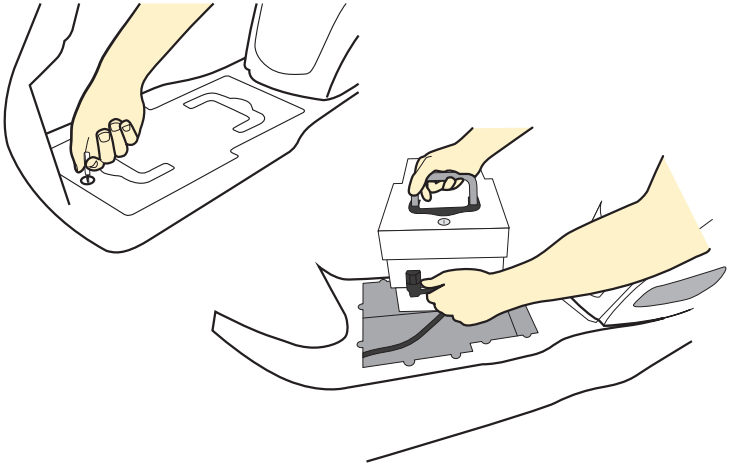


BATTERY MAINTENANCE

The Ecoped Pulse battery is designed to last for at least 500 recharge cycles. Long-term battery performance will vary depending on how often you ride your scooter, how often you recharge it, and the outside temperature during use.

Removing the Battery

1. Ensure that the scooter is safely parked using the double kickstand (see page 15).
2. Remove the floor mat and unlock the battery using the ignition key.
3. Using the folding handles, slowly lift the battery out of the storage bay. Rotate 90° and rest on the frame of the footrest.
4. Unplug the cable from the power connector.
5. See page 29 for battery storage tips. See page 21 to learn how to charge the battery outside of the scooter.



HOW TO EXTEND BATTERY LIFE

Make the most of each charge!

Travel as far as possible to use as much of the charge as you can before recharging. The battery will "learn" to charge fully instead of getting used to smaller charges.

Don't stay uncharged for too long!

Lead-acid batteries require a constant flow of chemicals inside the cells. If the battery stays uncharged for a long time (more than two weeks), this flow may be restricted the next time you charge. Charging the battery every few weeks can prevent this, even if you are not riding your scooter (especially during the winter!).

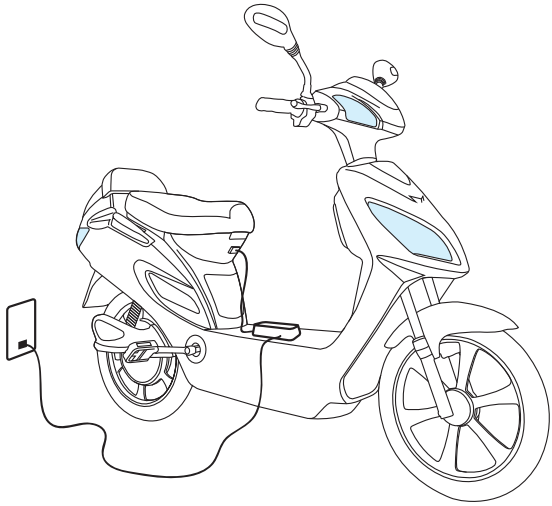
Charge Up Completely!

When the battery is charging, the charger will have one green and one red light. When the battery is fully charged, both lights on the charger will be GREEN. When you need to charge the battery, let it charge fully. This will "remind" the battery of its total capacity.

CHARGING ECOPED PULSE

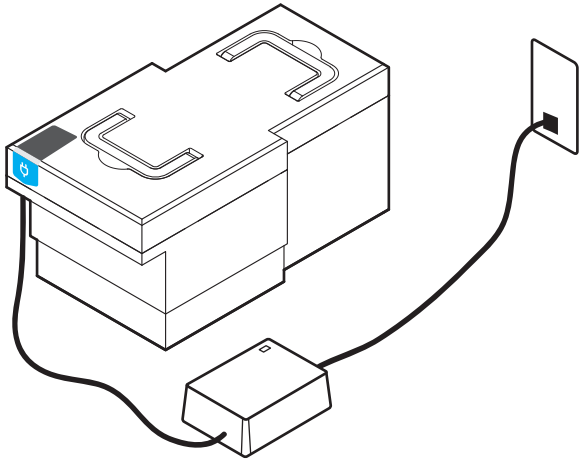
The Ecoped Pulse battery can be charged using two methods – through the scooter (which means that you don't need to remove the battery) and separate from the scooter. You should not use a different charger than the one supplied with your Ecoped Pulse. As well, avoid charging the battery in areas with lots of dust.

1. Park your scooter near a standard electrical outlet.
2. Connect the charger to the wall outlet.
3. Place the charging brick on the scooter footrest.
4. Connect the charging cable to the port located below the seat.
5. Allow for clear ventilation around all sides of the charger and do not place it on thick carpet or on wet floors.
6. The charger will automatically shut off when the battery is charged (allow for up to 8 hours).



Charging Separately from the Scooter

1. Follow the battery removal procedure on page 18.
2. Place the battery near a wall outlet and in a well-ventilated area
3. Connect the charger to the wall outlet.
4. Connect the charging cable to the port located below the top lip on the battery (see sticker on battery case).
5. Allow for clear ventilation around all sides of the charger and do not place on thick carpet or on wet floors.
6. The charger will automatically shut off when the battery is charged (allow for up to 8 hours).



FOLDING THE PEDALS

The pedals on Ecoped Pulse fold away to prevent damage to other bikes when parked. Remember to unfold the pedals before riding your scooter. Riding without any pedals installed may be prohibited by your provincial or municipal legislation.

How to Fold and Unfold the Pedals

1. Ensure that the scooter is safely parked using the double kickstand (see page 15).
2. Place two fingers in between the middle opening of the pedal.
3. Squeeze and press down on the pedal with the palm of your hand.
4. When folded, the pedal will line up flat with the sides of the footrest.
5. To unfold the pedals, squeeze and pull the pedal up. The pedal will “click” into place when properly unfolded.

MIRROR INSTALLATION

1. “Left” and “Right” orientations are determined by the position of the rider when seated on Ecoped Pulse. “L” and “R” stickers identify both mirrors.
2. Carefully align the mirror thread with the threads on the handle.
3. Rotate the mirror clockwise – if you feel any resistance, rotate counter-clockwise to remove and ensure proper threading.
4. Do not place excess force on the head of the mirror while tightening.
5. Disengage the kickstand and sit on the seat to adjust the mirrors for a suitable viewing angle.

BRAKE ADJUSTMENT

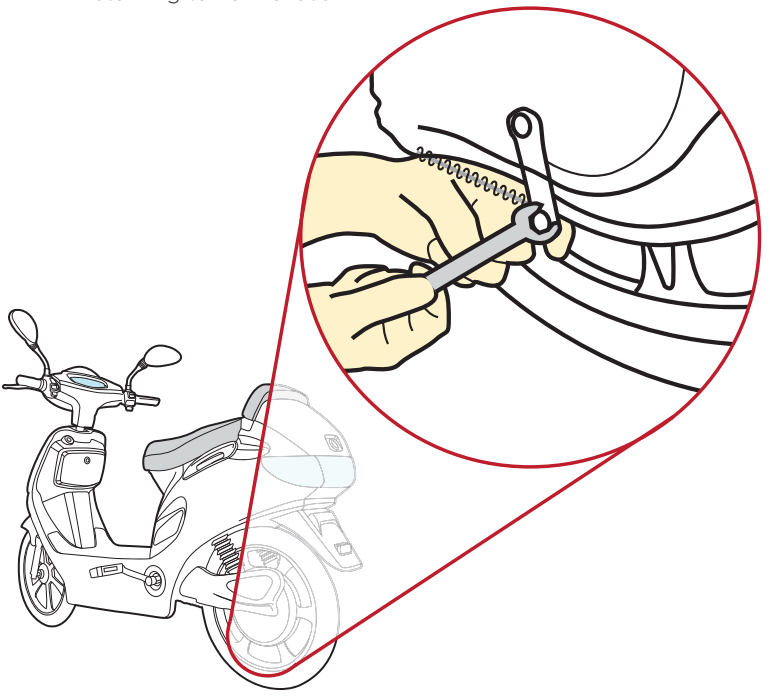
Ecoped Pulse (like all other bicycles) requires monthly brake adjustments. Before riding your scooter for the first time, make sure to adjust the brakes as they may have loosened during transport. “Left” and “Right” orientations are determined by the position of the rider when seated on Ecoped Pulse.

Adjusting the Front Brakes (Left-Side Brake Lever)

1. Ensure that the scooter is safely parked using the double kickstand (see page 15).
2. Pull the brake line away from the centre of the scooter and push the front brake adjuster toward the centre of the scooter.
3. Tighten the brake nut (rotate clockwise) to increase braking tension. Loosen the brake nut (rotate counterclockwise) to reduce braking tension.
4. Press the left brake handle to test. If properly adjusted, the brake handle should not touch the handlebar grip.
5. Ride your scooter for a short distance to test the brakes before returning to normal use.

Adjusting the Rear Brakes (Right-Side Brake Lever)

1. Ensure that the scooter is safely parked using the double kickstand (see page 15).
2. Using a 10mm wrench, loosen the bolt on the rear brake cable.
3. Gently pull the brake adjuster toward the centre of the scooter (you may need to hold the brake cable to increase tension).
4. Tighten the bolt on the brake cable.
5. Press the right brake handle to test. If properly adjusted, the brake handle should not touch the handlebar grip.
6. Ride your scooter for a short distance to test the brakes before returning to normal use.



Hit the Road – Riding Pulse

Congratulations, you've made it this far! You are almost ready to get on the road with your awesome new Ecoped Pulse. Here are a few tips for safe riding and proper road procedures.

Mounting the Scooter

Roll the scooter forward to disengage the double kickstand, and fold it flat against the bottom of the battery storage bay. Grab both handlebars and sit on the scooter seat while keeping one foot firmly on the ground. Start pedaling slowly and gradually to gain speed. You can accelerate slowly once you have gained momentum and the scooter is able to stay upright.

Accelerating

The right handlebar also acts as the throttle. To accelerate, gently twist the throttle upwards. Ecoped Pulse has a bit of a kick, so be careful not to twist too much! Get a feel for how the motor responds before setting out on a longer ride.

Pedaling

The folding pedals on Ecoped Pulse are there to provide additional power when riding up steep hills or when the battery begins to lose its charge. You should always keep the pedals unfolded and ready for use in the event that you need to use them. Using them will also help to save battery power and can increase the overall travel distance per charge!

Turning

Ecoped Pulse includes turning signals to let other riders and cars know when you are about to turn. Using the switch located on the left handlebar, you can engage the left and right turning signals whenever they are needed. This will use light indicators at the front and rear of the scooter as well as produce a sound that alerts others on the road.

Braking

The drum brakes on the front and rear wheels provide proper stopping power in most conditions. In city riding, where repeated braking is necessary, you may want to use the rear brake as it provides a gradual and more comfortable stop. The front brakes are stronger and should be used when a quick stop is necessary. Using both brakes at the same time is the most effective way of stopping quickly and safely. Make sure you are ready to plant one foot on the ground when the scooter comes to a stop.

Riding in Different Conditions

Ecoped Pulse is designed to work best in clear, dry weather. Proper surface grip is essential to safe riding, so use your discretion when riding on gravel or unpaved roads. Wet conditions may prevent proper grip and could become dangerous.

Use the headlights when riding at night to ensure that other riders and cars can see you from a distance. As allowed in your area, make use of dedicated bicycle lanes as much as possible and avoid swerving into the road.

As always, wearing a helmet provides the best protection in case of an accident. Depending on where you live, helmet use may be mandatory. Learn your local bicycle laws before riding Ecoped Pulse.

Riding on Hills

Riding downhill is a great way of adding an extra bit of power to the battery! Ecoped Pulse has a smart Power Regeneration System that converts energy generated from coasting back into electrical energy, feeding it into the battery pack inside of your scooter. Be careful not to speed downhill though, and give yourself plenty of time to stop safely. Ecoped Pulse may reach speeds faster than 40km/h, which is not recommended for a bicycle of this weight.

Riding uphill will require extra power from the battery and may also require that you pedal. Ecoped Pulse is designed to climb slopes of up to 16°, however this may change with road conditions, rider weight, battery charge, and cargo weight. You may lose balance if you can't maintain a fast enough speed when travelling uphill – in which case, it may be best to dismount the scooter and safely walk it to the point where riding is safe.

Regular Maintenance Schedule

Ecoped Pulse requires similar maintenance to traditional bicycles, and a proper maintenance schedule should be followed to ensure better performance.

Checking Tire Pressure (Twice a month)

Maximizing the travel distance per charge is as simple as maintaining the proper tire pressure. Use a normal bicycle tire gauge to check the pressure of both tires at least once each week. Optimal pressure is set between 35-38 PSI.

If you need to add air to either tire, you can do so using a normal bicycle pump. We don't recommend using an air compressor larger than 2 gallons to inflate the tires.

Cleaning Ecoped Pulse (Weekly)

Keeping Ecoped Pulse looking its best is easy to do. After each ride, wipe off any dust or dirt using a soft cloth (be careful not to apply too much pressure!). If there is any mud or specks of dirt, you can use a moist cloth without any detergents to get the bulk of debris off, and dry the paint with a soft towel.

Because Ecoped Pulse contains electrical components, we don't recommend using excessive amounts of water to wash the body panels. Don't use a hose or cleaning methods that require spraying at high pressure.

If you own an Ecoped Pulse with a flat grey finish, don't use any cleaning products that may have alcohol. In fact, warm water without

any soap additives is the best way to maintain a clean and flat finish. Soaps may leave behind a streaky film on the paint, so be careful when trying these out.

Storing Ecoped Pulse

When storing Ecoped Pulse for extended periods of time, we recommend that you fully charge the battery and remove it from the scooter. If you are storing Ecoped Pulse in a garage, ensure that the battery remains indoors and is kept at room temperature, and can be charged every 30 days.

To protect the scooter from damage, you should cover it using a large drop cloth or the Ecoped Storage Cover. Do not store Ecoped Pulse in areas with high humidity, as this could damage the electrical components.

Technical Specifications

2012 Ecoped Pulse	
Motor	750W Peak, 350W Running
Maximum Speed	32km/h
Acceleration	0-30km in 4.1 seconds*
Battery	48V 20Ah, 960Wh lead-acid rechargeable. 30A Fuse Up to 500 recharge cycles.*
Distance per Charge	Up to 70km*
Climbing Angle	9° maximum slope*
Charger	48V 2.8A, compatible with all household outlets
Charging Time	Under 8 hours
Load Capacity	125kg (275lb)
Weight	Scooter: 43kg (95lb) Battery: 28KG (62lb) Total: 71kg (157lb)
Tire Pressure	Between 38-40 PSI
Locking Storage	Steering column, under the seat and behind the rider
Security Features	Rear wheel lock, key-start ignition, steering column lock
Braking System	Electronic-ABS, drum brakes in front and rear
Stopping Distance	Under 9 metres
Lights	• Front LED headlights and daytime running lights, turn signals • Rear brake lights and turn signals
Rider Feedback	• LCD speedometer with trip information, acceleration and battery status • Audible turn signal horn
Operating Temperature Range	-20°C - 40°C

*All specifications are determined under ideal riding conditions and with proper maintenance.

Warranty and Legal Disclaimers

THE LEGAL STUFF

Ecoped Pulse is (technically) a power-assisted bicycle. What this means is it uses an electric motor to take some of the grunt work out of pedaling. For you, it means you get to move around the city in style and with minimal effort.

Having said that, Ecoped Pulse is still bound by a few (or depending on where you live, more than a few) laws. In general, bikes like Ecoped Pulse fall under the same rules for traditional bicycles, including helmet requirements. You will get the same benefits of a bicycle, like using dedicated bike lanes, free parking basically anywhere and amazing mobility.

While provinces can set their own requirements for what a power-assisted bicycle is classified as, the general components are:

1. An electric motor capable of producing no more than 500 watts of continuous power.
2. A top speed limited to 32km/h.
3. Turning signals and horn.
4. Pedals that allow you to use the bike without the need for a motor.

Before riding your new Pulse make sure to read up on your local bicycle laws. This information should be available on City Hall websites or by contacting your local police department.

Warranty Terms and Conditions

This warranty is limited to Ecoped Canada products sold after January 1, 2012, when distributed by Walmart Canada, unless specified otherwise in the individual purchase agreement.

This product is warranted to be free of defects in materials and workmanship from the original date of purchase according to the schedules defined in this warranty document. This limited warranty guarantees that any defective parts will be repaired or replaced, at the warrantor's discretion, at no cost, including diagnosis and replacement parts.

6-Month (180 days) Limited Warranty

The limited warranty coverage is continual from the initial date of purchase and does not restart at any time under any circumstances. This limited warranty is valid only when the equipment receives all necessary preventative maintenance, as described in the Ecoped Owners Guide. The repair or replacement will take place within a reasonable period of time during normal business hours.

Labour Warranty Claim Procedure

The product must be purchased from Walmart Canada, Midland Power Inc., or from an authorized distributor. This limited warranty applies to the first purchaser and each subsequent owner during the applicable warranty period. This warranty does not restart with each subsequent owner.

What Midland Power Inc. Will Repair or Replace Under Limited Warranty

MIDLAND POWER INC. will repair or replace, at its opinion, any part that is proven to be defective in material or workmanship under the normal use during the applicable warranty time period. Warranty repairs and replacement will be made without charge for parts, accessories, or labour, during the first six (6) months after original purchase. Anything replaced under warranty becomes property of MIDLAND POWER INC. All parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

Warranty service must be performed by an ECOPED-Authorized service dealer, using genuine ECOPED Certified Replacement parts. If you feel your equipment is malfunctioning due to a defect, simply contact our customer support team at 1-877-528-3772 for technical assistance, to file a warranty claim, or for general information.

Before Warranty Work Can Begin

To obtain warranty service, contact our customer support centre:
Toll-free: 1-877-528-3772
Email: support@ecoped.com
Online: www.ecoped.com

Limitations of Remedies and Disclaimers

THE FOREGOING LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY OTHER WARRANTY, WHETHER EXPRESSED OR IMPLIED.

MIDLAND POWER INC. disclaims any responsibility for any indirect, incidental, or consequential loss or damage caused by any defects in material or workmanship.

All expenses incurred in maintaining parts shall be incurred by the purchaser. This warranty coverage does not include parts affected by accident and/or collision, corrosion or rust, or normal wear, use in an application for which the product was not intended, service from an unauthorized service dealer, or any other misuse, neglect, incorporation or use of unsuitable attachments and/or parts. Under this warranty, the warrantor is not obligated to bear any transportation fees of any product to/from an authorized service dealer. Unauthorized alteration, installation, or any cause other than defects in material or workmanship or the product shall not be covered under this warranty.

Complications arising from misunderstanding or misinterpreting municipal or provincial legislation applicable to bicycles or power assisted vehicles are not the responsibility of ECOPED Canada, Midland Power Inc. or its distribution partners.

Not Covered by This Limited Warranty

- Normal wear and tear, such as but not limited to fading of painted or plated surfaces, sheet peeling and other natural deterioration.
- Damage caused by a lack of maintenance as described in the Ecoped Owners Guide.
- Consumable parts: Ecoped does not warrant deterioration of the following unless needed as a part for another warranted repair: tires, inner tubes, lost or broken keys, battery, light bulbs, and chain.
- Damage caused by accidental or improper installation or storage.
- Exposure of the product to chemical agents, bird droppings, sea water, sea breeze or salt.
- Improper repair or maintenance.
- Damage caused by water ingestion, submersion, or external water damage.
- Damage or non-performance caused by operation in a rural application.
- Operating methods other than those indicated in the owners manual.
- Damage caused by operation with improper pressure, conditions, or modifications contrary to published specifications.
- Items not supplied by Ecoped, such as, but not limited to, external wiring, modifications, etc.
- The use of non-genuine Ecoped parts and accessories.
- Repairs made during the warranty period without first obtaining a case number form Ecoped.

Product Registrations

Product registration is required for all product support and warranty coverage. The purchaser must also provide the original proof of purchase. The owner's registration, found with the user manual, must be completed and mailed. Registration is also available online at www.ecoped.com. You should keep your receipt as proof of purchase, as well as retain a record of the scooter serial number.

Product covered by Warranty (purchased after March 1, 2012)	Length of Warranty
2012 Ecoped Pulse (arctic white or stealth grey)	6 Months (180 days)
2011 Ecoped Pulse (green or graphite)	6 Months (180 days)
2011 Ecoped Ode (white or navy)	6 Months (180 days)

All information contained in this publication is based on the latest product information. Due to constant improvements in the design and quality of components, minor changes may be published to this user manual and collateral marketing materials. Midland Power Inc. reserves the right to make changes at any time, without notice, and without incurring any obligation to make similar modifications to previously built or purchased products. The descriptions and/or procedures outlined in this publication are intended for reference use only. Midland Power Inc. is not liable for any incidental, consequential, or contiguous damages arising from the use of this product.

©2012 Midland Power Inc. All Rights Reserved.
The Ecoped logo is a trademark of Midland Power Inc., registered in Canada and the U.S.
Use of the Ecoped logo or wordmark for commercial purposes without the prior written consent of Ecoped may constitute trademark infrindgement and a violation of copyright laws.
The information contained within this manual is subject to change without notice.

ECOPED
TM